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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,816	07/14/2003	Akira Morita	8215. 133	4180
7590 07/19/2004				
LINIAK, BERENATO & WHITE Suite 240 6550 Rock Spring Drive Bethesda, MD 20817			EXAMINER FULLER, RODNEY EVAN	
			ART UNIT 2851	PAPER NUMBER

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,816

Applicant(s)

MORITA ET AL.

Examiner

Rodney E Fuller

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

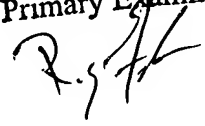
- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Rodney Fuller  
Primary Examiner

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/14/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Aikawa, et al. (US 5,563,682).

Aikawa discloses all the structure set forth in the claims. Regarding claim 1, Aikawa discloses “a first table (Fig. 3, ref.# 12) and a second table (Fig. 3, ref.# 13) each including a stage plate (Fig. 3, ref.# 3, 4) on which a work (column 1, line 2) is placed, and a light-transmissible plate (Fig. 3, ref.# 7) to which a mask (column 8, line 49) is previously mounted, the first and second tables being transferred alternately between a load/unload position where the work is loaded/unloaded and aligned with the mask and an exposure position where the aligned set of work and mask is exposed to light (column 8, lines 62-65); a first transferring passage (Fig. 1, ref.# 10) and a second transferring (Fig. 1, ref.# 11) passage arranged at two different levels between the load/unload position (Fig. 3, ref.# A) and the exposure position (Fig. 3, ref.# B), wherein the first transferring passage transfers the first table and the second table alternately, while the second transferring passage transfers the second table and the first table alternately; a hoist mechanism (Fig. 1, ref.# 2) which elevates one of the first and second tables to the first transferring passages, and lowers the other of the second and first tables to the second transferring passage; a conveyor mechanism (Fig. 3, ref.# 10e) which conveys the first and

second tables elevated or lowered by the hoist mechanism along the first and second transferring passages, one from the load/unload position to the exposure position, and the other from the exposure position to the load/unload position; an alignment mechanism (Fig. 3, ref.# A) which aligns the work that is placed on one of the tables conveyed to the load/unload position with the mask; and a light-exposure mechanism (Fig. 3, ref.# C) which radiates light to the work placed on the other of the tables conveyed to the exposure position.

Regarding claim 2, Aikawa discloses “wherein said hoist mechanism (Fig. 3, ref.# 2) engages with the first and second tables, respectively, through hoist guide means, and wherein said conveyor mechanism (Fig. 3, ref.# 10e) conveys the first and second tables by drive means engageable with the hoist guide means.”

Regarding claim 3, Aikawa discloses “wherein said light-transmissible plate (Fig. 3, ref.# 7) includes a plate member (Fig. 3, ref.# 7a) which allows transmission of light and to which the mask is set, a front plate-support member (Fig. 3, ref.# 7b) provided at a front side of the plate member in relation to a conveying direction of the table from the exposure position to the load/unload position, a positioning protrusion extending from the front plate-support member, and a rear plate-support member (Fig. 3, ref.# 7g) opposite to the front plate-support member and fixed to the table so as to be engageable with a rear side of the plate member.”

Regarding claim 4, Aikawa discloses “wherein an abutting member (Fig. 8, ref.# 7h) is provided in the load/unload position to move toward and away from the positioning protrusion of the light-transmissible plate, and wherein light-transmissible plate guiding means (Fig. 8, ref.# 8a) is provided to push the rear plate-support member of the light-transmissible plate so that the positioning protrusion abuts against the abutting member.”

Regarding claim 5, Aikawa discloses “wherein each of said first and second tables includes a frame member for remotely and oppositely supporting the stage plate with respect to the light-transmissible plate, and a suction mechanism for sucking a work against the mask.” (Fig. 14, ref.#s 61, 62; column 1, lines 33-36)

Regarding claim 6, Aikawa discloses “wherein said frame member has guide means (Fig. 6, ref.# 3a) for retaining the stage plate at a predetermined position.”

Regarding claim 7, Aikawa discloses “wherein each of said first and second tables includes a light-transmissible plate slide mechanism (Fig. 6, ref.# 12a) which slidably engages with slide means provided on the frame member, so that the stage plate is slidable against the light-transmissible plate.”

Regarding claim 8, Aikawa discloses “wherein each of said first and second tables includes a stopper plate (Fig. 5, ref.# 10d, 12d) laterally extending with respect to the second transferring passage extending from the exposure position to the load/unload position, and wherein an abutment stop (Fig. 4, ref.# 20) is provided to move toward and away from a sliding locus of the stopper plate.”

Regarding claim 9, Aikawa discloses “wherein each of said first and second tables is provided with conveyor rollers (Fig. 5, ref.# 12c) at one of sides extending along the first and second transferring passages, and an engage portion engageable with the hoist guide means at the other side, wherein a guide rail (Fig. 5, ref.# 10b) is arranged at both sides of the first and second transferring passages so that the conveyor rollers move along the guide rail, and wherein each guide rail of the first transferring passage includes a cutout through which the conveyor rollers are elevated and lowered, and an assist rail movable toward and away from the cutout.”

Regarding claim 10, Aikawa discloses “wherein said drive means (Fig. 3, ref.# 10h) is arranged surrounding the load/unload position and the exposure position and includes a drive belt (Fig. 3, ref.# 10e) engageable with the hoist guide means of the first and second tables and conveying the first and second tables along the first and second transferring passages, and belt guides (Fig. 3, ref.# 10f, 10g) for guiding the drive belt.”

Regarding claim 11, Aikawa discloses “a first hoist rod (Fig. 3, ref.# 2f) engageable with the first table through the hoist guide means at the load/unload position and the exposure position, a second hoist rod engageable with the second table through the hoist guide means at the load/unload position and the exposure position, a first rotation center rod connected to the first hoist rod through a first link member and being a rotation fulcrum at the time of elevating or lowering the first hoist rod through the first link member, a second rotation center rod connected to the second hoist rod through a second link member and being a rotation fulcrum at the time of lowering or elevating the second hoist rod through the second link member, and link drive means for rotatably and synchronously moving the first and second link members.” (Fig. 1, ref.# 2a-f)

Regarding claim 12, Aikawa discloses “aligning the mask and the work on the first table at the first position (Fig. 3, ref.# A), while exposing the work on the second table to light through the mask at the second position (Fig. 3, ref.# B); and conveying the first table and the second table in an endless manner along a loop (Fig. 3, ref.# 10e), which extends across the first and second positions and includes the first and second transferring passages.”

Regarding claim 13, Aikawa discloses “wherein the first position and the second position are parallel.” (See Figure 3, ref.# A, B)

Regarding claim 14, Aikawa discloses "wherein the first transferring passage and the second transferring passage are positioned vertically to each other." (See Figure 3, ref.# 10e)

Regarding claim 15, Aikawa discloses "wherein the first transferring passage is arranged on top of the second transferring passage." (See Figure 3, ref.# 10e)

Regarding claim 16, Aikawa discloses "wherein the loop is rectangular." (See Figure 3, ref.# 10e)

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney E Fuller whose telephone number is 571-272-2118. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rodney E Fuller  
Primary Examiner  
Art Unit 2851

